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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,060	06/20/2003	Christopher Padgett	14186US01	5850
23446	7590	11/01/2005		
MCANDREWS HELD & MALLOY, LTD 500 WEST MADISON STREET SUITE 3400 CHICAGO, IL 60661			EXAMINER HEITBRINK, JILL LYNNE	
			ART UNIT	PAPER NUMBER
			1732	

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/600,060	<b>Applicant(s)</b> PADGETT ET AL.	
	<b>Examiner</b> Jill L. Heitbrink	<b>Art Unit</b> 1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 August 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 and 17-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15, 17-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### ***Drawings***

1. The drawings were received on Aug. 25, 2005. These drawings are unacceptable. The submitted new drawings, Figures 1, 2 and 4, are not of sufficient quality such that all details in the drawings can be determined. The drawings appear to be photographs. Applicant should use drawings to illustrate the subject matter described in the specification. 37 CFR 1.84 (b)(1) states that "Black and white Photographs, including photocopies of photographs, are not ordinarily permitted in utility and design patent applications. The Office will accept photographs in utility and design patent applications, however, if photographs are the only practicable medium for illustrating the claimed invention. For example, photographs or photomicrographs of: electrophoresis gels, blots (e.g., immunological, western, Southern, and northern), autoradiographs, cell cultures (stained and unstained), histological tissue cross sections (stained and unstained), animals, plants, in vivo imaging, thin layer chromatography plates, crystalline structures, and, in a design patent application, ornamental effects, are acceptable. If the subject matter of the application admits of illustration by a drawing, the examiner may require a drawing in place of the photograph. The photographs must be of sufficient quality so that all details in the photographs are reproducible in the printed patent.

2. In order to avoid abandonment of this application, correction is required in reply to the Office action. The correction will not be held in abeyance.

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The drawings are objected to under 37 CFR 1.83(a) because they fail to show the elements as described in the specification for Figures 1, 2 and 4. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 5, 6, 7, 8 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by El-Soudani Pat. No. 6,029,269, col. 3, lines 36-41 and col. 4, lines 11-15.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over El-Soudani Pat. No. 6,029,269 taken together with Crescentini Pat. No. 6,219,849.

7. El-Soudani (col. 3, lines 36-41 and col. 4, lines 11-15) discloses the claimed process for titanium matrix composite material. Crescentini teaches the molding of plastic (polymer) protective headgear. It would have been obvious to a person of ordinary skill in the art that the thermoforming and trimming a polymer in El-Soudani since the material is superplastically formed in El-Soudani and helmets of polymer material are desired. Crescentini (col. 6, lines 4-8) teaches that the helmet can be made by an all-injection technique rather than thermoforming. It would have been obvious to mold a polymer helmet by injection molding into the basic shape shown in Fig. 4 of El-Soudani and then trim the helmet to the desired shape since the trimming of the injection molding helmet is required as taught by Crescentini (col. 5, lines 61-62)

8. Claims 4, 8, 9, 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over El-Soudani Pat. No. 6,029,269 in view of applicant's disclosed prior art.

9. Applicant discloses that helmets of many different shapes are known in the art for different functions and design. It would have been obvious to a person of ordinary skill in the art to form and remove a portion of the helmet to produce the desired shape depending upon the helmet user needs. El-Soudani teaches the trimming of the helmet to the final form. It would have been obvious to a person of ordinary skill in the art to trim a second helmet with a different shape since helmet of different trimmed shapes would be desirable for different uses.

10. Claims 10, 11 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over El-Soudani Pat. No. 6,029,269 in view of applicant's disclosed prior art as applied to claims 4, 8, 9, 12-14 above, and further in view of Crescentini Pat. No. 6,219,849.

11. El-Soudani (col. 3, lines 36-41 and col. 4, lines 11-15) discloses the claimed process for titanium matrix composite material. Crescentini teaches the molding of plastic (polymer) protective headgear. It would have been obvious to a person of ordinary skill in the art that the thermoforming and trimming a polymer in El-Soudani since the material is superplastically formed in El-Soudani and helmets of polymer material are desired. Crescentini (col. 6, lines 4-8) teaches that the helmet can be made by an all-injection technique rather than thermoforming. It would have been

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obvious to mold a polymer helmet by injection molding into the basic shape shown in Fig. 4 of El-Soudani and then trim the helmet to the desired shape since the trimming of the injection molding helmet is required as taught by Crescentini (col. 5, lines 61-62).

### ***Response to Arguments***

12. Applicant's arguments filed August 25, 2005 have been fully considered but they are not persuasive.

13. Applicant argues that the trimming of scrap material 42 in El-Soudani is not equivalent to the selectively removing portions of the brim of the basic safety helmet to produce a modified brim. The examiner disagrees. El-Soudani states "Referring now to FIG. 4, a perspective view of a helmet, designated generally as 40,". Thus, Fig. 4 shows a helmet and 40 is pointing to the entire helmet in Fig. 4. The removing of a portion of the brim is clearly shown. This removed portion is called scrap since the removed portion is not part of the final shape of the helmet. El-Soudani removes a selected portion from the brim which portion is scrap.

14. Applicant argues that a person of ordinary skill in the art would not have been able to form plastic helmets using the process of El-Soudani. The examiner disagrees. Polymer materials are available in many different forms and with many different properties. Each polymer necessitating different process conditions as are well known in the art. Applicant has not specified any specific type of polymer or any specific process parameters necessary for forming the polymer. A person of ordinary skill in the

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art for forming helmets would use the known properties of the polymer to determine the necessary condition of the forming process, as shown by Crescentini. These conditions are not new in the art since polymer/plastic helmets are known to be formed.

15. Applicant argues that El-Soudani would not teach the modifying formed hardhats into at least two hardhats of different shapes. The trimming of the hardhats is disclosed in El-Soudani and a trimming line is shown in Fig. 4. The changing of the trimming line to produce a different trimmed hardhat would have been within the skill of the art depending upon the desired final product.

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.



Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill L. Heitbrink whose telephone number is (571) 272-1199. The examiner can normally be reached on Monday-Friday 9 am -2 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jill L. Heitbrink  
Primary Examiner  
Art Unit 1732

jlh